| FORM PTO-1449 (Modified) | | | | ATTY. DOCKET NO. APPLICATION NUMBER 10/772,023 | | | | | | |
|--|---------------------------------------|----------------------|---|---|--------------------|----------------------|---------------------|---------------|--|--|
| LIST OF INFORMATION PROVIDED BY APPLICANT (Use several sheets if necessary) USE SEVERAL SHEETS IN THE SECOND SH | | | | APPLICANT P. M. Ayoub et al. | | | | | | |
| | | | FILING DATE February 4, 2004 | GROUP ART UNIT 1764 | | | | | | |
| REFERENCEID | ESIGNA | TION - STATE OF THE | PA | ENT DOCUMENTS () | | | | | | |
| Examiner Initial | | Document No. | Date | Patentee | Class | Subclass | Filing if Approp | Date riate | | |
| JCD | AA | 4,438,287 | 3/20/84 | lmai | 568 | 909 | | | | |
| JCD | AB | 3,907,909 | 9/23/75 | Maculuso Sr. et al. | 260 | 632 HF | | | | |
| JCD | AC | 5,849,960 | 12/15/98 | Singleton et al. | 568 | 909 | | | | |
| JCD | AD | 2002/0004621 | 1/10/02 | Xu et al. | 585 | 260 | | | | |
| JCD | AE | 2002/0087040 | 7/4/02 | Marchionna et al. | 585 | 331 | , | | | |
| JCD | AF | 6,414,199 | 7/2/02 | Saruwatari | 68 | 728 | | | | |
| JCD | AG | 2,930,763 | 3/29/60 | Haensel | 252 | 441 | | | | |
| JCD | AH | 6,150,322 | 11/21/00 | Singleton et al. | 510 | 426 | | | | |
| | Al | 6,737,553 | 5/18/04 | Maas et al. | 568 | 909 | | | | |
| JCD | | L | FOREIGN | ATENT DOCUMENTS | - Dire-1-17 | · (1) | | 雅 歌 | | |
| 1 38-u ed. us. 15- | | Document No. | Date | Country | Class | Subclass | Translat Yes | ion No | | |
| JCD | AL | 1,601,818 | 6/27/77 | Great Britain | C07C | 31/02 | | | | |
| JCD | AM | 0,668,342 | 8/23/94 | Europe | C01B | 33/28 | , | | | |
| JCD | AN | 0,211,381 A1 | 2/25/87 | Europe | C07C | 7/1 <u>6</u> 3 | | | | |
| JCD | AO | 00/12451 | 3/9/00 | World | C07C | 7/13 | | | | |
| 7 7 1 | *** | | 1.00 | THOR, TITLE DATE: PERTINEN | W AND A COURSE A N | Market Control State | V-7.1 | | | |
| JCD | AR | XP002932342 | | iry Sasol R&D Technical Bu | | | | | | |
| JCD | AS | Zeolite Science Tech | nology, 1986, Ko | olecular Sieves and the Pei odansha Ltd., Tokyo, Japan | , pp. 103-11 | 12 | | | | |
| JCD | AT | | "Alcohols, Higher Aliphatic," Kirk Othmer Encyclopedia of Chemical Technology, 2000, Fourth Edition, John Wiley & Sons, pp. 865-913 | | | | | | | |
| EXAMINER | ـــــــــــــــــــــــــــــــــــــ | John Douglas/ | | DATE CONSIDERED | 10/07/20 | 06 | | | | |

1. 2.

The attached cited information should not be construed as an admission that any of the above items are prior art to the subject Invention. This is not a representation that a search has been made.

| FORM PTO-1449 (Modified) | | | | ATTY. DOCKET NO. APPLICATION NUMBER 10/772,023 | | | | | |
|--------------------------|---------|---|---------------------------------|---|------------------------|--------------------|-------------|-----------------|--|
| LIS | ST OF I | NFORMATION PROVI | IDED | APPLICANT P. M. Ayoub et al. | | | | | |
| (Use | several | sheets if necessary) | | FILING DATE February 4, 2004 | GROUP ART UNIT 1764 | | | | |
| REFERENCEID | ESIGNA | TION: | - ' U.S. P | ATENT DOCUMENTS | | English Arts | 4 | S S A S A | |
| Examiner Initial | | Document Number | Date | Patentee | Class | Subclass | | ng Date | |
| JCD | ВА | 6,008,181 | 12/28/99 | Cripe et al. | 510 | 426 | | | |
| JCD | BB | 6,015,781 | 1/18/00 | Vinson et al. | 510 | 302 | | | |
| JCD | ВС | 6,020,303 | 2/1/00 | Cripe et al. | 510 | 503 | | | |
| JCD | BD | 6,046,152 | 4/4/00 | Vinson et al. | 510 | 428 | | | |
| JCD | BE | 6,060,443 | 5/9/00 | Cripe et al. | 510 | 426 | | | |
| JCD | BF | 6,087,309 | 7/11/00 | Vinson et al. | 510 | 125 | | | |
| JCD | BG | 6,133,222 | 10/17/00 | Vinson et al. | 510 | 428 | | <u> </u> | |
| JCD | вн | 6,320,080 | 11/20/01 | Connor | 568 | 28 | | | |
| JCD | ВІ | 6,326,348 | 12/4/01 | Vinson et al. | 510 | 428 | | | |
| | | | FOREIGN | PATENT DOCUMENTS | 1.79 | 新 夏 / 八百年 / | W. | Company Company | |
| &£ | | | <u> </u> | 200 | | | | tion No | |
| | | Document Number | Date | Country | Class | | Yes | 1 | |
| JCD | BL | 0,055,529 | 7/7/82 | Europe | C01B | 33/34 | ļ | | |
| JCD | ВМ | 0,103,981 | 3/28/84 | Europe | C01B | 33/28 | | | |
| JCD | BN | 0,583,836 | 2/23/94 | Europe | C10G | 65/12 | | | |
| | ВО | | | | | | <u> </u> | - Green on o | |
| ,? | | | ٠. | AUTHOR:TITLE, DATE, PERTIN | | | \$ · | | |
| JCD | BR | Edward J. Wickson, Chemical Society Sy | Editor, "Monoh mposium Serie | ydric Alcohols; Manufacture es 159, 1981, pp. 72-164 | e, Applicatio | ins and Chen | nistry," Ar | nerican | |
| | BS | ` | | | | | | | |
| | вт | | | | | | | | |
| EXAMINER | /Jc | hn Douglas/ | | DATE CONSIDERED | 10/07 | 7/2006 | | <u></u> | |

The attached cited information should not be construed as an admission that any of the above items are prior art to the subject invention. This is not a representation that a search has been made.

^{1.} 2.

Sheet 3 of 10 ATTY, DOCKET NO. APPLICATION NUMBER FORM PTO-1449 (Modified) TH2229 10/772.023 APPLICANT LIST OF INFORMATION PROVIDED P. M. Ayoub et al. BY APPLICANT FILING DATE **GROUP ART UNIT** (Use several sheets if necessary) February 4, 2004 1764 PREFERENCE DESIGNATION CONTROL OF THE PROPERTY Filing Date Examiner Subclass Class if Appropriate **Document Number** Date **Patentee** Initial 558 31 6,433,207 8/13/02 Connor CA JCD 568 909 CB 5,780,694 7/14/98 Singleton JCD 451 Betts et al. 568 6/26/03 2003/0120118 CC JCD 260 671 CD 5/6/69 Oldham 3,442,965 JCD 809 5/14/02 Himelfarb et al. 585 CE 6,388,162 JCD 558 41 7/20/04 Fenouil et al. CF 6,765,106 JCD 568 909 12/10/02 Murray et al. CG 6,492,568 JCD 174.21 252 5/12/92 Giacobbe et al. СН 5,112,519 JCD 568 909 Singleton 4/24/01 CI 6,222,077 JCD FOREIGN PATENT DOCUMENTS 7年7年 1 Air. Translation Class **Subclass** Yes No Country Date **Document Number** CL СМ CN CO OTHER DOCUMENTS (INCLUDING AUTHOR) TITLE DATE, PERTINENT PAGES, ETC.) CR CS CT DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

10/07/2006

/John Douglas/

The attached cited information should not be construed as an admission that any of the above items are prior art to the subject invention.

^{2.} This is not a representation that a search has been made.

Sheet 4 of 10 ATTY, DOCKET NO. **APPLICATION NUMBER** FORM PTO-1449 (Modified) 10/772,023 TH2229 APPLICANT LIST OF INFORMATION PROVIDED P. M. Ayoub et al. BY APPLICANT FILING DATE **GROUP ART UNIT** (Use several sheets if necessary) 1764 February 4, 2004 REPERENCE DESIGNATION CONTRACTOR OF THE PROPERTY OF THE PROPER Filing Date Examiner Subclass if Appropriate Patentee **Document Number** Date Initial 568 909 12/15/98 Singleton et al. ĎΑ 5.849.960 JCD 426 510 11/21/00 Singleton et al. DB 6,150,322 JCD 448 252 12/2/52 Hoekstra 2.620.314 DC JCD 260 604 1/25/66 DD 3,231,621 Slaugh JCD 260 604 3/8/66 Slaugh DE 3,239,566 JCD 260 632 3/8/66 Slaugh DF 3,239,569 JCD 260 632 3/8/66 Slaugh DG 3,239,570 JCD 260 632 3/8/66 Slaugh DH 3,239,571 JCD 260 683.3 9/20/66 Moore et al. DI 3,274,287 JCD # FOREIGN PATENT DOCUMENTS HE WAS A STATE OF THE PATENT DOCUMENT D **Translation** Yes Class Subclass Nο Country **Document Number** Date DL DM DN DO OTHER DOCUMENTS (INCLUDING AUTHOR) TITLE DATE PERTINENT PAGES, ETC.) DR DS DT

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

DATE CONSIDERED

10/07/2006

/John Douglas/

^{1.} The attached cited information should not be construed as an admission that any of the above items are prior art to the subject invention.

This is not a representation that a search has been made.

| FORM PTO-1449 (Modified) | | | | ATTY. DOCKET NO. TH2229 | APPLICATION NUMBER 10/772,023 | | | | | |
|--------------------------|----------|---------------------------------|------------------|---------------------------------|-------------------------------|---------------|---------------------------------------|---------------------------------------|--|--|
| LIS | ST OF I | NFORMATION PROV BY APPLICANT | IDED | APPLICANT P. M. Ayoub et al. | | | | | | |
| • | | sheets if necessary) | | FILING DATE February 4, 2004 | | | | | | |
| REFERENCE | ESIGNA | TION | r ∂: e:<- U!S. P | ATENT DOCUMENTS | | of the second | TYAT'S | 112 | | |
| Examiner Initial | | Document Number | Date | Patentee | Class | Subclass | g Date priate | | | |
| JCD | EA | 3,315,007 | 4/18/67 | Abell, Jr. et al. | 260 | 683.3 | | | | |
| JCD | EB | 3,315,008 | 4/18/67 | Abell, Jr. et al. | 260 | 683.3 | | | | |
| JCD | EC | 3,400,163 | 9/3/68 | Mason et al. | 260 | 606.5 | | | | |
| JCD | ED | 3,420,875 | 1/7/69 | DiSalvo et al. | 260 | 513 | | | | |
| JCD | EE | 3,420,893 | 1/7/69 | Faltings et al. | 260 | 618 | | | | |
| JCD | EF | 3,428,654 | 2/18/69 | Rubinfeld etal. | 260 | 327 | | | | |
| JCD | EG | 3,440,291 | 4/22/69 | Van Winkle et al. | 260 | 632 | | | | |
| JCD | EH | 3,448,157 | 6/3/69 | Slaugh et al. | 260 | 604 | | | | |
| JCD | EI | 3,462,525 | 8/19/69 | Levinsky | 424 | 56 | | | | |
| | 1 7 | | FOREIGN | PATENT DOCUMENTS | | | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | | | |
| | | Document Number | Date | Country | Class | Subclass | <u>Translat</u> Yes | lion No | | |
| | EL | | | | | | | | | |
| | EM | | | | | | | | | |
| | EN | | | | | | - | | | |
| | EO | · | | | | | | | | |
| | <u> </u> | OTHER DOCUMEN | ITS (INCLUDING) | AUTHOR, TITLE, DATE, PERTI | NENT PAGES, | ETC.) | | | | |
| | 1 | | | | | | | | | |
| | ER | | | | | | | | | |
| | ES | | | | | • | | | | |
| | ET | | | | | | | · · · · · · · · · · · · · · · · · · · | | |
| EXAMINER | /Jol | n Douglas/ | | DATE CONSIDERED | 10/07/ | 2006 | | | | |

The attached cited information should not be construed as an admission that any of the above items are prior art to the subject invention. This is not a representation that a search has been made. 1. 2.

| FORM PTO-1449 (Modified) | | | | ATTY. DOCKET NO. TH2229 | APPLICATION NUMBER 10/772,023 | | | | | |
|--|----------|----------------------|------------------------------|---------------------------------|-------------------------------|--------------|-------------------------|---------------|--|--|
| LIST OF INFORMATION PROVIDED BY APPLICANT | | | APPLICANT P. M. Ayoub et al. | | | | | | | |
| (Use | several | sheets if necessary) | | FILING DATE February 4, 2004 | | | | | | |
| REFERENCED | ESIGNA | TION FOR SERVICE S | u:S. PAT | IENT/DOCUMENTS | 生物質 | 1: 4.4 . 4 ° | 1.19.19.3 | | | |
| Examiner Initial | | Document Number | Date | Patentee | Class | Subclass | Filing if Approp | Date | | |
| JCD | FA | 3,488,158 | 1/6/70 | Bentley et al. | 23 | 258.5 | | | | |
| JCD | FB | 3,496,203 | 2/17/70 | Morris et al. | 260 | 439 | | | | |
| JCD | FC | 3,496,204 | 2/17/70 | Morris et al. | 260 | 439 | | | | |
| JCD | FD | 3,501,515 | 3/17/70 | Van Winkle et al. | 260 | 439 | | | | |
| JCD | FE | 3,506,580 | 4/14/70 | Rubinfeld et al. | 252 | 138 | | | | |
| JCD | FF | 3,527,818 | 9/8/70 | Mason et al. | 260 | 632 | | | | |
| JCD | FG | 3,676,523 | 7/11/72 | Mason | 260 | 683 | | . | | |
| JCD | FH | 3,686,351 | 8/22/72 | Mason | 260 | 683.15 | | | | |
| JCD | FI | 3,737,475 | 6/5/73 | Mason | 260 | 683.15 | | | | |
| | <u> </u> | | PATENT DOCUMENTS | - 14. P | | | <u> </u> | | | |
| | | Document Number | Date | Country | Class | Subclass | <u>Translati</u> Yes | No | | |
| | FL | | | | | | | | | |
| | , FM | | | | | | | | | |
| | FN | | | | | | | | | |
| | FO | | | | | | | | | |
| 17.00 | | OTHER DOCUMEN | TS (INCLUDING AL | JTHOR, TITLE DATE, PERTINEN | IT PAGES, | ETC.) | 2,75 % | | | |
| | FR | | | | | | | | | |
| | FS | | | | | | | | | |
| | FT | | | | | | | | | |
| EXAMINER | | hn Douglas/ | | DATE CONSIDERED | 10/07 | /2006 | | | | |

The attached cited information should not be construed as an admission that any of the above items are prior art to the subject invention. 1. 2.

This is not a representation that a search has been made.

APPLICATION NUMBER ATTY. DOCKET NO. FORM PTO-1449 (Modified) TH2229 10/772,023 APPLICANT LIST OF INFORMATION PROVIDED P. M. Ayoub et al. BY APPLICANT FILING DATE GROUP ART UNIT (Use several sheets if necessary) February 4, 2004 1764 Filing Date Examiner Subclass if Appropriate Class **Document Number** Date **Patentee** Initial 139 208 7/10/73 3.745,112 Rausch GA JCD 260 327 5/18/71 Rubinfeld et al. 3,579,537 GB JCD 423 328 4/5/77 Plank et al. 4,016,245 GC JCD 683.15 260 Kister et al. GD 4,020,121 4/26/77 JCD 423 329 2/17/81 Nanne et al. GE 4,251,499 JCD 467 585 3/1/83 Young GF 4,375,573 JCD 585 660 2/7/84 Imai et al. 4,430,517 GG JCD 223 502 3/19/85 Imai et al. GH 4,506,032 JCD 423 329 3/25/86 Morimoto et al. 4,578,259 GI JCD FOREIGN PATENT DOCUMENTS **Translation** Class Subclass Yes No Country Date **Document Number** GL GM GN GO OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE DATE, PERTINENT PAGES, ETC.) A M GR GS **GT** DATE CONSIDERED **EXAMINER** 10/07/2006 /John Douglas/

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered, Include copy of this form with next communication to the applicant.

The attached cited information should not be construed as an admission that any of the above items are prior art to the subject invention.

This is not a representation that a search has been made.

Sheet 8 of 10 ATTY. DOCKET NO. APPLICATION NUMBER FORM PTO-1449 (Modified) TH2229 10/772,023 APPLICANT LIST OF INFORMATION PROVIDED P. M. Ayoub et al. BY APPLICANT FILING DATE **GROUP ART UNIT** (Use several sheets if necessary) 1764 February 4, 2004 ENT DOOUMEXUS TO THE STATE OF T (REFERENCEIDESIGNATION Filing Date Examiner Subclass Class if Appropriate **Document Number** Date Patentee Initial 324 585 4/1/86 Sie HA 4,579,986 JCD 423 328 4,795,623 1/3/89 Evans HB JCD 328 423 7/17/90 Evans 4,942,027 HC JCD 585 315 4/30/91 Vora etal. HD 5,012,021 JCD 252 174.21 5/12/92 Giacobbe et al. 5,112,519 HE JCD 259 502 12/8/92 Saleh et al. 5,169,824 HF JCD 43 17.5 1/11/94 Ramirez HG 5,276,990 JCD 820 3/8/94 Kantner et al. 585 HH 5,292,990 JCD 251 585 12/6/94 Gosselink et al. Ш 5.371.308 JCD FOREIGN PATENT DOCUMENTS Translation Class Subclass Yes Country Date **Document Number** HL

| • | | | | | | | | | |
|---|----------|---------------|------------------|------------------|--------------|----------|---------|------------------|------|
| | HN | | | | | | | | |
| | НО | | | | | | | | |
| | 144 (51) | OTHER DOCUMEN | TS (INCLUDING AU | THOR, TITLE, DAT | E, PERTINENT | PAGES, E | TC!), ¥ | (5) 18 (4 | 14 W |
| | HR | | | | | | | | |
| | HS | | | | | | | • | |
| | нт | | | | | | | • | · |

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered, include copy of this form with next communication to the applicant.

DATE CONSIDERED

10/07/2006

/John Douglas/

НМ

^{1.} The attached cited information should not be construed as an admission that any of the above items are prior art to the subject invention.

This is not a representation that a search has been made.

APPLICATION NUMBER ATTY. DOCKET NO. FORM PTO-1449 (Modified) TH2229 10/772.023 APPLICANT LIST OF INFORMATION PROVIDED P. M. Ayoub et al. BY APPLICANT FILING DATE **GROUP ART UNIT** (Use several sheets if necessary) 1764 February 4, 2004 REFERENCEIDESIGNATION US PATENT DOCUMENTS Filing Date Examiner Subclass if Appropriate **Document Number** Date **Patentee** Class Initial 64 502 4/23/96 Murray IΑ 5,510,306 JCD 585 666 5,648,584 7/15/97 Murray IB JCD 585 671 7/15/97 Murray et al. IC 5,648,585 JCD 585 531 5,849,972 12/15/98 Vicari et al. ID JCD 423 706 ΙĘ 5,985,238 11/16/99 Pasquale et al. JCD 510 426 11/21/00 Singleton et al. IF 6.150,322 JCD 568 909 4/24/01 Singleton 6,222,077 IG JCD 585 826 5/1/01 Sohn et al. ΙH 6,225,518 JCD 562 39 9/10/02 Jacobson et al. II 6,448,435 JCD FOREIGN PATENT DOCUMENTS 17.4 300 h uga : 37 - 7 22 Translation Class Subclass Country **Document Number Date** IL IM IN 10 OTHERIDOCUMENTS (INCLUDING AUTHOR, TITLE, DATE; PERTINENT PAGES, ETC.) **IR** IS IT DATE CONSIDERED 10/07/2006 **EXAMINER** /John Douglas/

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered, include copy of this form with next communication to the applicant.

^{1.} The attached cited information should not be construed as an admission that any of the above items are prior art to the subject invention.

This is not a representation that a search has been made.

Sheet 10 of 10 ATTY. DOCKET NO. **APPLICATION NUMBER** FORM PTO-1449 (Modified) 10/772.023 TH2229 APPLICANT LIST OF INFORMATION PROVIDED P. M. Ayoub et al. BY APPLICANT **GROUP ART UNIT FILING DATE** (Use several sheets if necessary) 1764 February 4, 2004 REFERENCE DESIGNATION USE TO A STATE OF THE PROPERTY OF THE PR Filing Date Examiner Subclass if Appropriate Date **Patentee Document Number** Initial 558 41 10/8/02 JΑ 6,462,215 Jacobson et al. JCD 558 41 7/20/04 Fenouil et al. JB 6,765,106 JCD 568 909 12/2/03 Dirkswager et al. JC 6,657,092 JCD 208 67 8/3/04 Ansorge et al. ĴD 6,770,191 JCD JE JF JG JH IJ LANCES TO THE PROPERTY OF THE **Translation** Yes No Class **Subclass** Date Country **Document Number** JL JM JN JO CONTROL OF THE PROPERTY OF THE JR JS JT

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

DATE CONSIDERED

10/07/2006

/John Douglas/

The attached cited information should not be construed as an admission that any of the above items are prior art to the subject invention.

^{2.} This is not a representation that a search has been made.